

(19) World Intellectual Property
Organization
International Bureau



552785

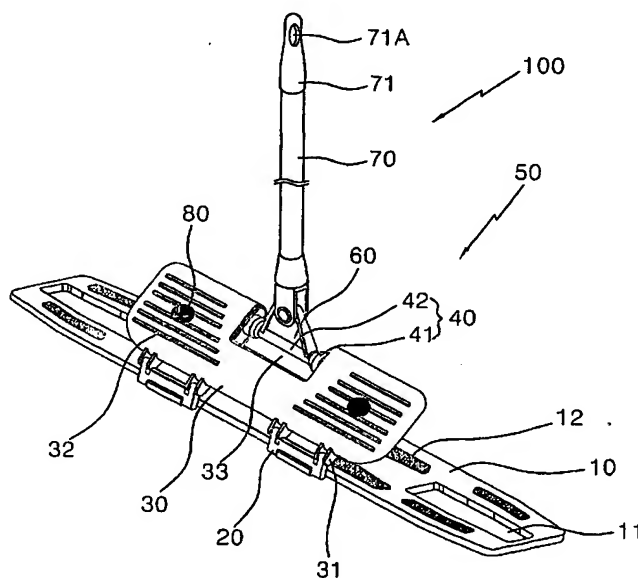
(43) International Publication Date
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number
WO 2004/086931 A1

- (51) International Patent Classification⁷: A47L 13/20
- (21) International Application Number:
PCT/KR2003/002286
- (22) International Filing Date: 28 October 2003 (28.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
20-2003-0010354 4 April 2003 (04.04.2003) KR
20-2003-0010355 4 April 2003 (04.04.2003) KR
- (71) Applicant and
(72) Inventor: LEE, Seung Jae [KR/KR]; 204-302, Daerim Apt., 259, Todang-dong, Deokyang-gu, Goyang-si, Gyeonggi-do 412-210 (KR).
- (74) Agent: SOHN, Eun Jin; Eun Jin Sohn Patent & Law Office, 1F., Yeoksam P-Bldg., 824-17, Yeoksam-dong, Gangnam-gu, Seoul 135-080 (KR).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A FLOOR MOP CAPABLE OF USING BOTH SIDES



(57) Abstract: The present invention relates to a floor mop capable of using both sides without bending one's back, and a floor mop which is capable of being fixed by a magnetic force, and which has a rotation structure for fixing selectively both sides of a floor cloth attached to the supporting pad. The rotation structure has a permanent magnet to press and fix the floor cloth by magnetic force. Here, the rotation structure has a triple hinge connection structure which comprises a first rotation zone hinge-combined to a supporting pad, a second rotation zone hinge-combined to the first rotation zone, and a roller hinge-combined to the second rotation zone, thereby the floor mop is capable of rotating more smoothly around the supporting pad.

WO 2004/086931 A1